Attachment A

Vonage Outline for Progress on Advanced VoIP E-911 Deployment

VONAGE

OUTLINE FOR PROGRESS ON ADVANCED VOIP E-911 DEPLOYMENT

Vonage has been unable to provide E-911 service for two reasons: first, the incumbent LECs have denied Vonage the ability to interconnect with Selective Routers (the switching equipment that route emergency calls onto trunks dedicated to a particular PSAP); and second, because Vonage lacked the ability to transmit dynamic location information to the PSAPs. Although we have made progress towards resolving these issues with several of the RBOCs over the past few weeks, these solutions are not yet available on a uniform, consistent, nationwide basis, which is necessary to ensure that all Americans using VoIP have access to true E911 emergency services.

When a wireline E911 call is made, the call is sent to the ILEC tandem switch, where the Selective Router directs the call to the PSAP serving the caller based on the caller's telephone number. Except in Rhode Island, the Selective Router is owned and operated by an ILEC as part of the tariffed E-911 service it provides to the PSAP operators. Upon receipt of the call, which includes the caller's telephone number in the call signaling, the PSAP sends a query to the Automatic Location Identification ("ALI") database to retrieve the address (and other pertinent information) of the caller. The ALI database also is usually maintained by the ILEC, but can be maintained by a third party.

Access to the Selective Router is necessary but not sufficient for Vonage to provide E-911 access to its customers. Because VoIP customers can access the service from any location, Vonage faces the problem of providing dynamic, real-time location information to the PSAP. The ALI database was designed to store static location information, on the assumption that users would be "hard-wired" to the telephone network.

Wireless carriers have faced the same problem, and have developed a solution that allows real-time updating of location data using a system known as Non-Call Path Associated Signaling ("NCAS").[1] Although wireless carriers use a different method to *determine* the location of their callers than Vonage or other VoIP providers, their method of *transmitting* that information to the PSAP is readily extendable to VoIP.

The wireless NCAS system relies on the use of a pseudo-telephone number called the Emergency Service Routing Digit ("ESRD"), Emergency Service Routing Key ("ESRK"), or "pseudo-ANI" ("pANI"). These pANIs look like telephone numbers in the form NPA-211-XXXX or NPA-511-XXXX and are geographically assigned to wireless carriers by the ILEC that operates the Selective Router. When a wireless caller dials 9-1-1, the wireless carrier locates the caller, assigns an appropriate pANI to the call corresponding to that geographic location, and forwards the call, using the pANI instead of the caller's wireless phone number, to the Selective Router. The Selective Router transmits the call to the appropriate PSAP based on the pANI, and

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[1] Two other systems, known as Call Associated Signaling ("CAS") and Hybrid CAS are also used by wireless carriers, but these methodologies are not relevant to this discussion.

the PSAP makes the ALI query using the caller's pANI. At the same time that the wireless carrier passes the pANI to the Selective Router, it also stores the actual call-back number and the geographic coordinates of the calling party in its own (or its contractor's) database. When the PSAP query is received at the ALI database, the ALI database "steers" the query to the wireless carrier's (or contractor's) database for the call back number, the cell site information, and geographic coordinates of the originating caller. The ALI database formats this information into the ALI display and passes it on to the PSAP.[2]

An implementation of NCAS for VoIP providers would differ only in how the location of the caller is determined. VoIP providers, at least for now, have to rely on users to register their own locations with the provider. When a 9-1-1 call is placed, the provider would look up the caller's location in the registration database. From that point on, the rest of the NCAS process would be the same: the provider would assign a pANI appropriate to the caller's geographic location and route the call with this pANI to the Selective Router; the Selective Router would direct the call to the correct PSAP; the PSAP would use the pANI to send a query to the ALI database; the ALI database would "steer" the query to the VoIP provider's database, which would send back the actual call-back number and location; and the ALI database would reformat and return this information to the PSAP.

Although several RBOCs recently have committed to give Vonage and other VoIP providers access to their Selective Routers, and in a few cases we have made progress towards obtaining pANI assignments for use with NCAS, these arrangements have had to be negotiated on a state-by-state and carrier-by-carrier basis. In the absence of any clear legal duty to provide this access, some ILECs have been less than cooperative. Their delays and intransigence regrettably have exposed many VoIP users to unnecessary risks in emergency situations.

There clearly is no technical impediment to the access sought by Vonage. All ILECs, to our knowledge, provide access to their Selective Routers to other ILECs and CLECs operating within the geographic areas served by the tandem, and to wireless carriers; indeed, several ILECs also offer access to the Selective Router to end users.[3] Likewise, all ILECs, to our knowledge, are offering NCAS arrangements to wireless carriers.[4]

The FCC has a clear statutory mandate under Section 1 of the Communications Act of 1934 to "promot[e] safety of life and property through the use of wire and radio communica-

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[2] For more detailed information, *see* Hatfield, Dale N., *A Report on Technical and Operational Issues Impacting the Provision of Wireless Enhanced 911 Services,* Oct. 15, 2002, at 9-11. This report can be found at http://www.fcc.gov/911/enhanced/reports/

[3] *See, e.g.*, Qwest Corporation, Exchange and Network Services Price List, State of Minnesota, Section 9, pages 127 *et seq.* ("Private Switch Automatic Location Identification" Service); Verizon California Inc., Schedule Cal. P.U.C. No. A-20 ("Private Switch (PS) 9-1-1 - Emergency Telephone Service"); BellSouth Telecommunications, Inc., PSC Ky. Tariff 2A, Section A13.27.8 ("BellSouth 9-1-1 PinPoint Service").

[4] *See, e.g.*, Verizon, *Wireless Supplement to 9-1-1 Activation Guide*, available at http://www22.verizon.com/wholesale/utils/attach-redirect/?target=/wholesale/attachments/e911/wireless_guide.doc.

tion," and under Section 251(e)(3) and other statutes has plenary authority over the use of the 9-1-1 code for emergency dialing.[5] Furthermore, any refusal by an ILEC to provide VoIP providers access to the Selective Router and to pANIs and other resources associated with E-911 functionality, on the same terms and conditions as they provide such access to themselves, to other LECs, and to wireless carriers, would clearly constitute unreasonable discrimination in violation of Section 202(a) of the Act. In particular, the Commission has long held that a common carrier must demonstrate a persuasive justification for any "use and user" restrictions; *i.e.*, restricting a service to a particular category of user or a particular use, and that mere economic benefit to the carrier is not a reasonable basis for discrimination.[6] In this case, there is no difference between the services sought by Vonage and those already provided to other entities; the only difference is in the regulatory status of the users.

The Commission thus has ample legal authority to require all ILECs, to the extent they operate selective routers or 9-1-1 tandem switches, to offer to VoIP providers the same forms of interconnection to those switches that they provide to any LEC or other telecommunications carrier, on the same terms and conditions. This should specifically include access to pANIs and other signaling codes made available to any telecommunications carrier.

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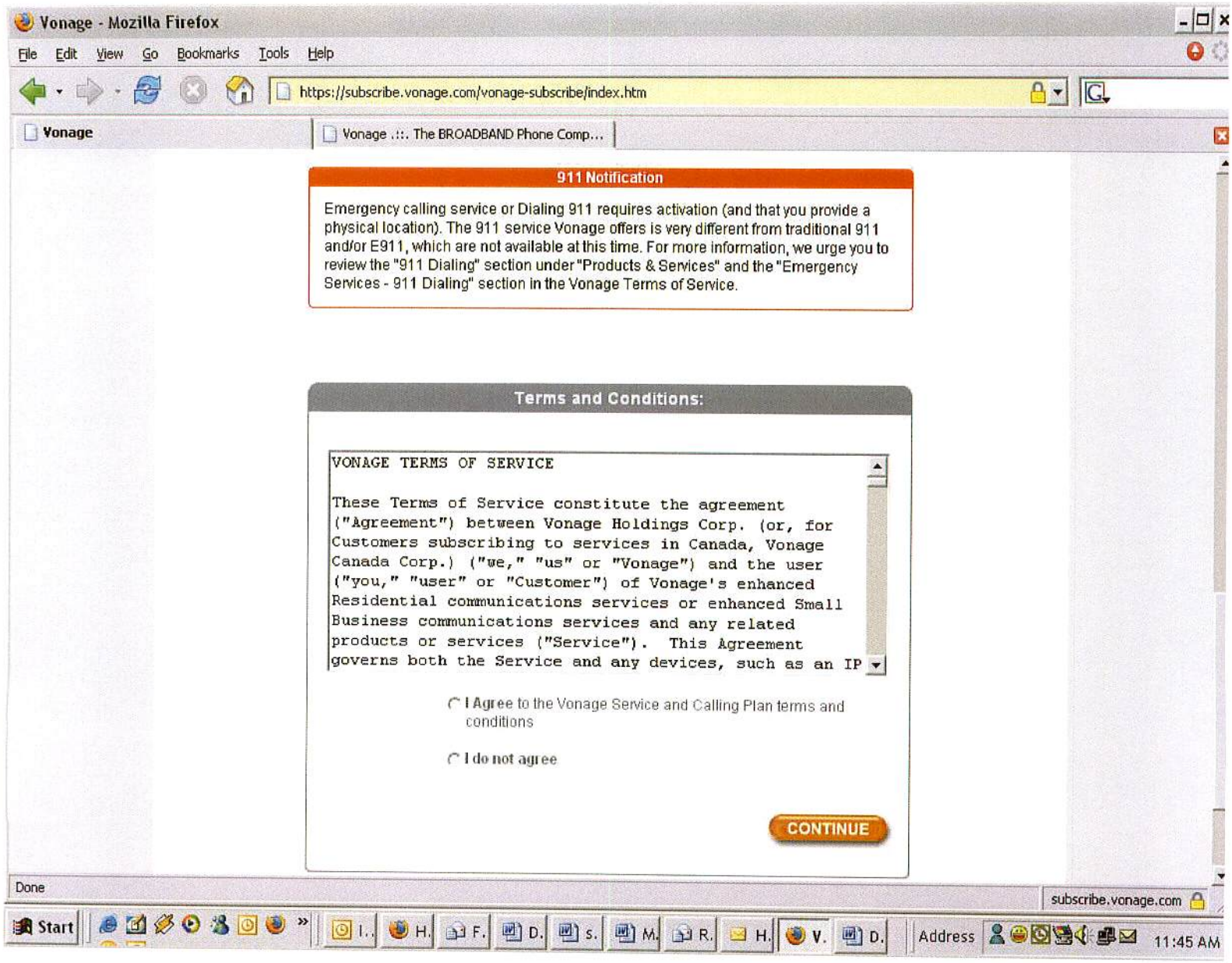
[5] *Revision of the Commission's Rules to Ensure Compatibility With Enhanced 911 Emergency Calling Systems; Amendment of Parts 2 and 25 to Implement the Global Mobile Personal Communications by Satellite (GMPCS) Memorandum of Understanding and Arrangements; Petition of the National Telecommunications and Information Administration to Amend Part 25 of the Commission's Rules to Establish Emissions Limits for Mobile and Portable Earth Stations Operating in the 1610-1660.5 MHz Band*, Report and Order and Second Further Notice of Proposed Rulemaking, FCC 03-290, 18 FCC Rcd 25340, paras. 12-14 (2003).

[6] *See Regulatory Policies Concerning Resale and Shared Use of Common Carrier Services and Facilities*, 60 FCC 2d 261 (1976) (services offered to end users must also be available to resellers); *Petition of First Data Resources, Inc., Regarding the Availability of Feature Group B Access Service to End Users*, Memorandum Opinion and Order, 1986 WL 291786 (1986) (services offered to carriers must also be available to end users).

Attachment B

Vonage Customer Notifications, Disclaimers, and Activation Information Concerning 911 Service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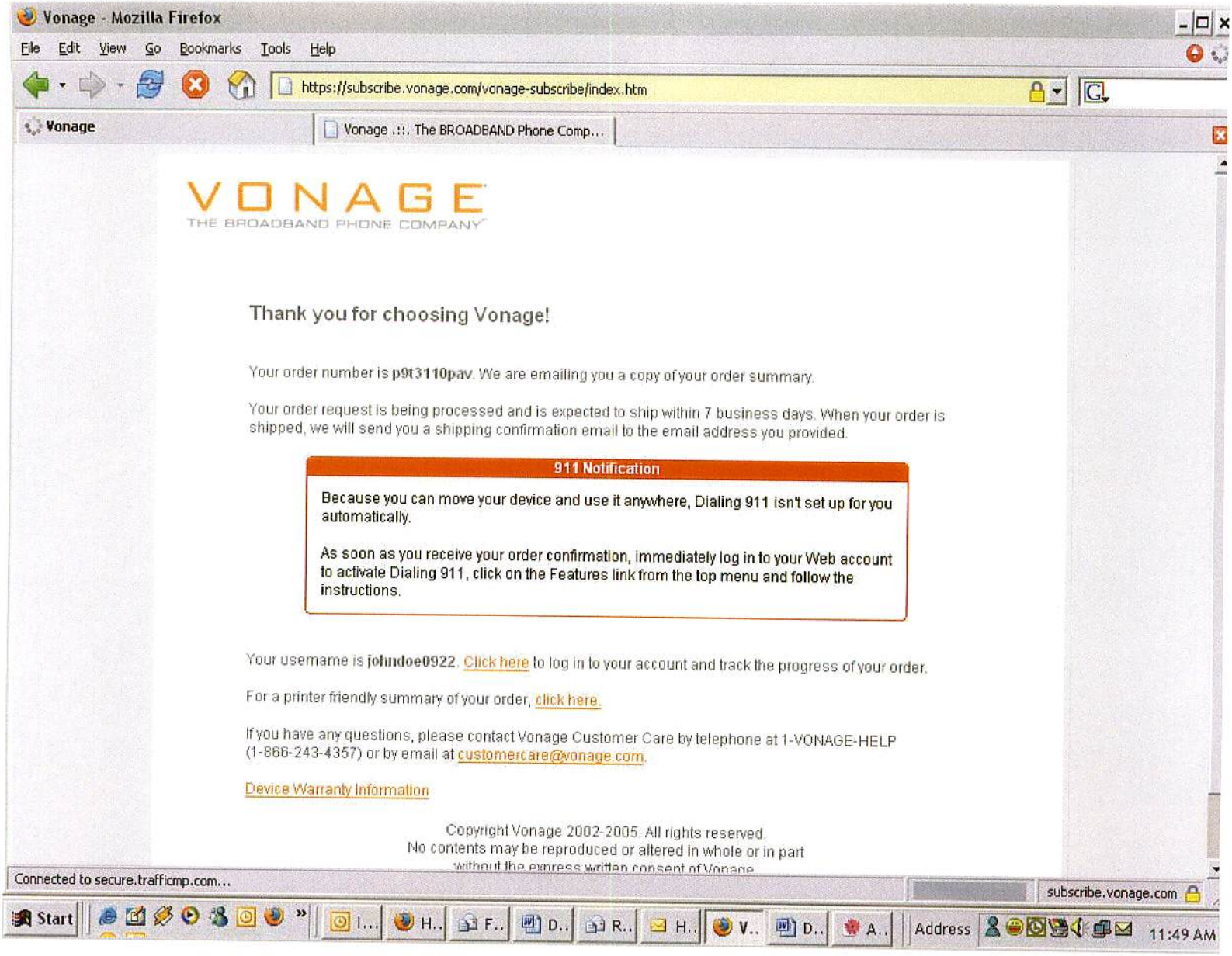
https://subscribe.vonage.com/vonage-subscribe/index.htm
Vonage
Vonage .::. The BROADBAND Phone Comp...
911 Notification
Emergency calling service or Dialing 911 requires activation (and that you provide a physical location). The 911 service Vonage offers is very different from traditional 911 and/or E911, which are not available at this time. For more information, we urge you to review the "911 Dialing" section under "Products & Services" and the "Emergency Services - 911 Dialing" section in the Vonage Terms of Service.
Terms and Conditions:
VONAGE TERMS OF SERVICE
These Terms of Service constitute the agreement ("Agreement") between Vonage Holdings Corp. (or, for Customers subscribing to services in Canada, Vonage Canada Corp.) ("we," "us" or "Vonage") and the user ("you," "user" or "Customer") of Vonage's enhanced Residential communications services or enhanced Small Business communications services and any related products or services ("Service"). This Agreement governs both the Service and any devices, such as an IP
I Agree to the Vonage Service and Calling Plan terms and conditions
I do not agree
CONTINUE
Done
subscribe.vonage.com
Start
Address
11:45 AM


Vonage - Mozilla Firefox
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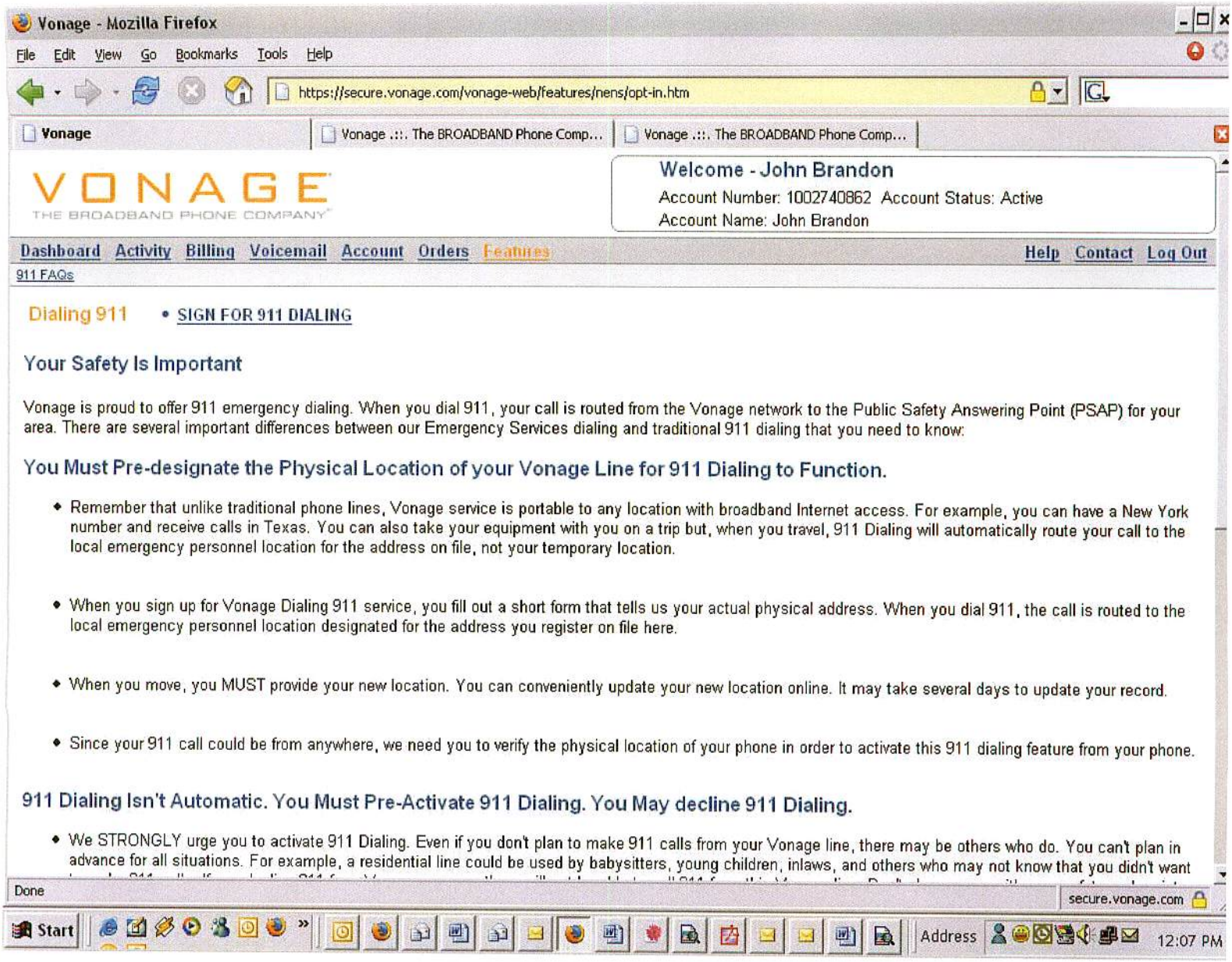
https://subscribe.vonage.com/vonage-subscribe/index.htm
Vonage
Vonage .::. The BROADBAND Phone Comp...
VONAGE
THE BROADBAND PHONE COMPANY
Thank you for choosing Vonage!
Your order number is p9t3110pav. We are emailing you a copy of your order summary.
Your order request is being processed and is expected to ship within 7 business days. When your order is shipped, we will send you a shipping confirmation email to the email address you provided.
911 Notification
Because you can move your device and use it anywhere, Dialing 911 isn't set up for you automatically.
As soon as you receive your order confirmation, immediately log in to your Web account to activate Dialing 911, click on the Features link from the top menu and follow the instructions.
Your username is johndoe0922. Click here to log in to your account and track the progress of your order.
For a printer friendly summary of your order, click here.
If you have any questions, please contact Vonage Customer Care by telephone at 1-VONAGE-HELP (1-866-243-4357) or by email at customercare@vonage.com.
Device Warranty Information
Copyright Vonage 2002-2005. All rights reserved.
No contents may be reproduced or altered in whole or in part
without the express written consent of Vonage
Connected to secure.trafficmp.com...
subscribe.vonage.com
Start
Address
11:49 AM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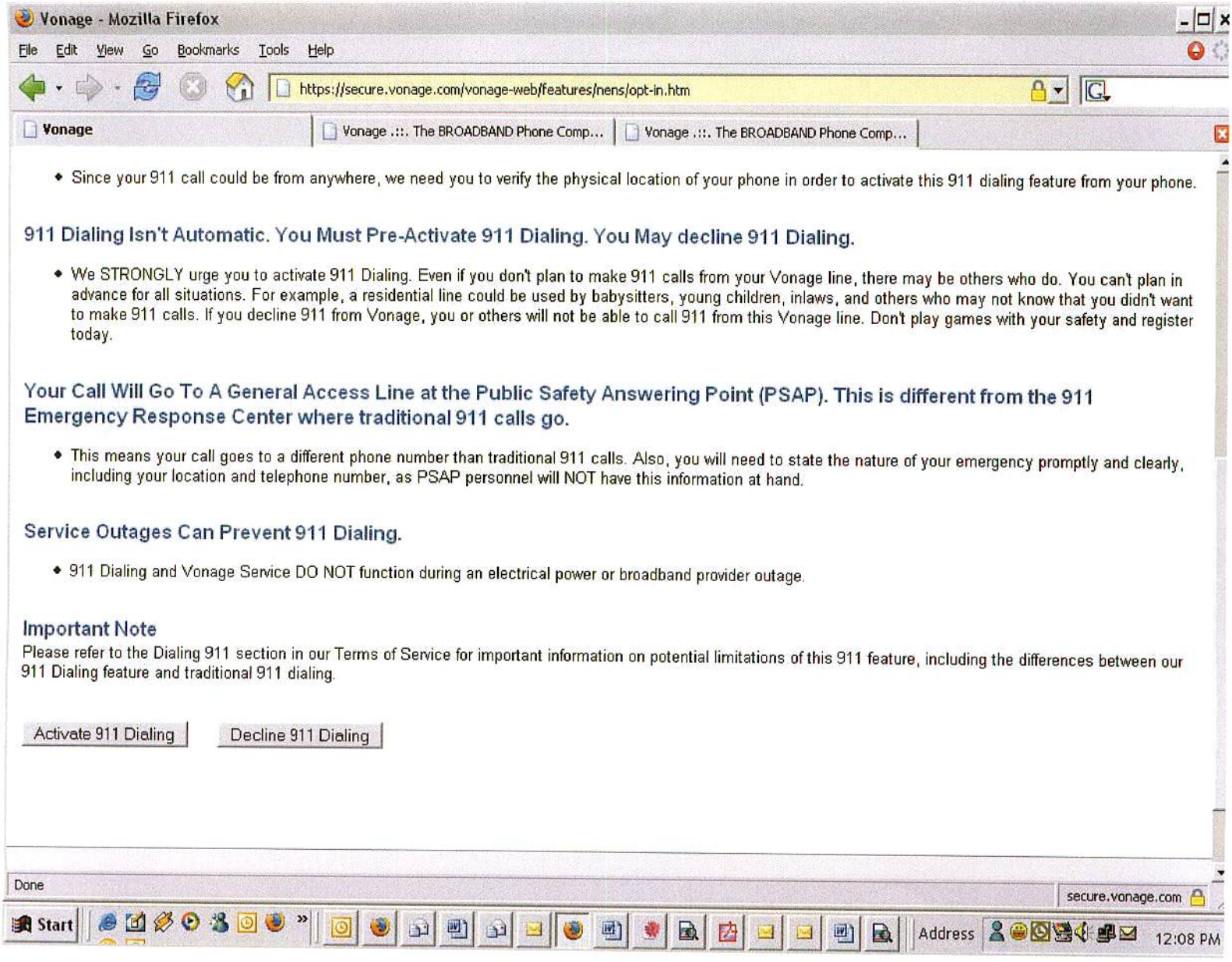
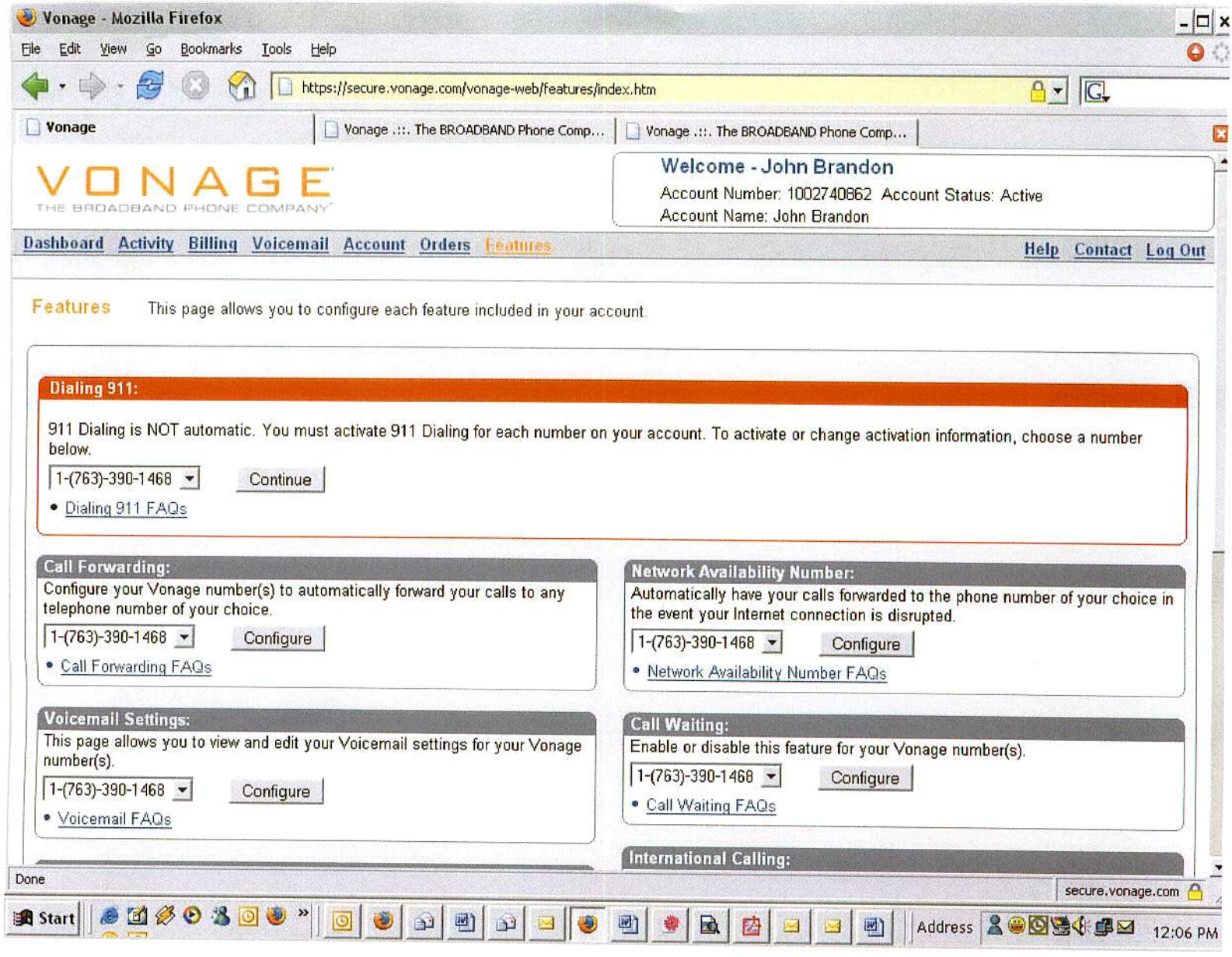
Vonage .::. The BROADBAND Phone Comp...
Vonage .::. The BROADBAND Phone Comp...
VONAGE
THE BROADBAND PHONE COMPANY
Welcome - John Brandon
Account Number: 1002740862 Account Status: Active
Account Name: John Brandon
Dashboard Activity Billing Voicemail Account Orders Features
Help Contact Log Out
911 FAQs
Dialing 911
• SIGN FOR 911 DIALING
Your Safety Is Important
Vonage is proud to offer 911 emergency dialing. When you dial 911, your call is routed from the Vonage network to the Public Safety Answering Point (PSAP) for your area. There are several important differences between our Emergency Services dialing and traditional 911 dialing that you need to know:
You Must Pre-designate the Physical Location of your Vonage Line for 911 Dialing to Function.
• Remember that unlike traditional phone lines, Vonage service is portable to any location with broadband Internet access. For example, you can have a New York number and receive calls in Texas. You can also take your equipment with you on a trip but, when you travel, 911 Dialing will automatically route your call to the local emergency personnel location for the address on file, not your temporary location.
• When you sign up for Vonage Dialing 911 service, you fill out a short form that tells us your actual physical address. When you dial 911, the call is routed to the local emergency personnel location designated for the address you register on file here.
• When you move, you MUST provide your new location. You can conveniently update your new location online. It may take several days to update your record.
• Since your 911 call could be from anywhere, we need you to verify the physical location of your phone in order to activate this 911 dialing feature from your phone.
911 Dialing Isn't Automatic. You Must Pre-Activate 911 Dialing. You May decline 911 Dialing.
• We STRONGLY urge you to activate 911 Dialing. Even if you don't plan to make 911 calls from your Vonage line, there may be others who do. You can't plan in advance for all situations. For example, a residential line could be used by babysitters, young children, inlaws, and others who may not know that you didn't want
Done
secure.vonage.com
Start
Address
12:07 PM


Vonage - Mozilla Firefox
File Edit View Go Bookmarks Tools Help
https://secure.vonage.com/vonage-web/features/nens/opt-in.htm
Vonage
Vonage .::. The BROADBAND Phone Comp...
Vonage .::. The BROADBAND Phone Comp...
Since your 911 call could be from anywhere, we need you to verify the physical location of your phone in order to activate this 911 dialing feature from your phone.
911 Dialing Isn't Automatic. You Must Pre-Activate 911 Dialing. You May decline 911 Dialing.
We STRONGLY urge you to activate 911 Dialing. Even if you don't plan to make 911 calls from your Vonage line, there may be others who do. You can't plan in advance for all situations. For example, a residential line could be used by babysitters, young children, inlaws, and others who may not know that you didn't want to make 911 calls. If you decline 911 from Vonage, you or others will not be able to call 911 from this Vonage line. Don't play games with your safety and register today.
Your Call Will Go To A General Access Line at the Public Safety Answering Point (PSAP). This is different from the 911 Emergency Response Center where traditional 911 calls go.
This means your call goes to a different phone number than traditional 911 calls. Also, you will need to state the nature of your emergency promptly and clearly, including your location and telephone number, as PSAP personnel will NOT have this information at hand.
Service Outages Can Prevent 911 Dialing.
911 Dialing and Vonage Service DO NOT function during an electrical power or broadband provider outage.
Important Note
Please refer to the Dialing 911 section in our Terms of Service for important information on potential limitations of this 911 feature, including the differences between our 911 Dialing feature and traditional 911 dialing.
Activate 911 Dialing
Decline 911 Dialing
Done
secure.vonage.com
Start
Address
12:08 PM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https://secure.vonage.com/vonage-web/features/index.htm
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Vonage .::. The BROADBAND Phone Comp...
VONAGE
THE BROADBAND PHONE COMPANY
Welcome - John Brandon
Account Number: 1002740862 Account Status: Active
Account Name: John Brandon
Dashboard Activity Billing Voicemail Account Orders Features
Help Contact Log Out
Features
This page allows you to configure each feature included in your account.
Dialing 911:
911 Dialing is NOT automatic. You must activate 911 Dialing for each number on your account. To activate or change activation information, choose a number below.
1-(763)-390-1468
Continue
Dialing 911 FAQs
Call Forwarding:
Configure your Vonage number(s) to automatically forward your calls to any telephone number of your choice.
1-(763)-390-1468
Configure
Call Forwarding FAQs
Network Availability Number:
Automatically have your calls forwarded to the phone number of your choice in the event your Internet connection is disrupted.
1-(763)-390-1468
Configure
Network Availability Number FAQs
Voicemail Settings:
This page allows you to view and edit your Voicemail settings for your Vonage number(s).
1-(763)-390-1468
Configure
Voicemail FAQs
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Enable or disable this feature for your Vonage number(s).
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